

**Building on Our Inventive Strengths:  
40 Years of Use Patents in Missouri (1963 – 2003)**  
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During the past 40 years Missouri's institutions and individuals have been awarded more than 27,000 patents for their innovations and inventions. Of those patents about 25% have been in categories associated with the life sciences.

Missouri has shown a particular aptitude for biochemical, food, and drug invention throughout this period, and has shown growing strength in surgical inventions both in procedures and apparatus. The top two biochemical related patent classes (Organic Compounds and Bio-Affecting and Body Treating Drug Compositions) together account for almost 11% of all patents issued to Missouri individuals and institutions during the past 40 years.

**Top 20 Use Patent Classes by Patents Awarded to Missouri Individuals and Institutions**

Class	Class Title	40-year Total	Overall rank	1993-2002	1993-2002 rank	2003	2003 rank
532	Organic Compounds (includes Classes 532-570)	1710	1	309	2	20	4
424	Drug, Bio-Affecting and Body Treating Compositions (includes Class 514)	1272	2	693	1	77	1
520	Synthetic Resins or Natural Rubbers (includes Classes 520-528)	605	3	90	11	9	17
504	Plant Protecting and Regulating Compositions	452	4	76	21	7	22
435	Chemistry: Molecular Biology and Microbiology	450	5	241	3	29	2
426	Food or Edible Material: Processes, Compositions, and Products	440	6	84	14	11	9
137	Fluid Handling	363	7	83	16	7	23
222	Dispensing (apparatus and process)	343	8	125	5	6	33
52	Static Structures (e.g., Buildings)	334	9	86	12	8	18
128	Surgery (includes Class 600)	332	10	164	4	24	3
280	Land Vehicles	320	11	79	19	3	68
210	Liquid Purification or Separation	312	12	82	17	6	34
604	Surgery (Medicators and Receptors)	292	13	113	8	14	6
428	Stock Material or Miscellaneous Articles	290	14	115	6	15	5
29	Metal Working	270	15	65	24	6	35
5	Beds	253	16	91	10	12	7
62	Refrigeration	243	17	68	23	8	19
310	Electrical Generator or Motor Structure	240	18	101	9	5	41
73	Measuring and Testing	238	19	84	15	11	10
248	Supports (e.g., for holding articles, etc.)	238	20	77	20	10	13

Source: U.S. PATENT AND TRADEMARK OFFICE, Office of Electronic Information Products, Patent Technology Monitoring Division (PTMD) – Analysis by MERIC

Meanwhile, innovation in traditionally manufacturing patent classes such as metalworking, static structures and electrical generator or motor structure, while remaining important, declined over this period.

## Missouri's Life Sciences Related Patents

Innovation in life sciences related patent classes is an important and growing proportion of Missouri's inventive strength. The issuance of these types of patents increased from 22% of Missouri patents between 1963 and 1972 to almost 30% of those patents between 1993 and 2002.

### Comparison of All Use Patents to Life Sciences Related Use Patents

Class Title	1963-1972	1973-1982	1983-1992	1993-2002	2003	40 Year Total
<b>ALL CLASSES</b>	7,241	6,125	5,605	7,655	823	27,449
<b>Patent Classes related to Life Sciences</b>	1,605	1,525	1,374	2,277	237	7,018
<b>Percentage of patents related to Life Sciences</b>	22.17%	24.90%	24.51%	29.75%	28.80%	25.57%

Source: U.S. PATENT AND TRADEMARK OFFICE, Office of Electronic Information Products, Patent Technology Monitoring Division (PTMD) – Analysis by MERIC

The identification of patent class categories related to the life sciences industries was done in the previous MERIC study: "Knowledge Clusters – Rivals in Innovation: The Life Sciences Industry." This concentration of expertise identifies what could be considered a strategic asset for Missouri, and as such this expertise should be employed in the strategic development of Missouri's labor force and the growth of its economy.

### Life Sciences Patent Classes by Category

#### Organic Pharmaceutical Chemistry and Manufacturing

Class 351 , Optics: Eye Examining, Vision Testing and Correcting  
Class 424 , Drug, Bio-Affecting and Body Treating Compositions  
Class 435 , Chemistry: Molecular Biology and Microbiology  
Class 436 , Chemistry: Analytical and Immunological Testing  
Class 530 , Chemistry: Natural Resins or Derivatives; Peptides or Proteins; Lignins or Reaction Products Thereof  
Class 536 , Organic Compounds -- Part of the Class 532-570 Series  
Class 705 , Data Processing: Financial, Business Practice, Management, or Cost/Price Determination

#### Inorganic and Synthetic Pharmaceutical Chemistry and Manufacturing

Class 423 , Chemistry of Inorganic Compounds  
Class 504 , Plant Protecting and Regulating Compositions  
Class 514 , Drug, Bio-Affecting and Body Treating Compositions  
Class 534 , Organic Compounds -- Part of the Class 532-570 Series  
Class 540 , Organic Compounds -- Part of the Class 532-570 Series  
Class 544 , Organic Compounds -- Part of the Class 532-570 Series  
Class 546 , Organic Compounds -- Part of the Class 532-570 Series  
Class 548 , Organic Compounds -- Part of the Class 532-570 Series  
Class 549 , Organic Compounds -- Part of the Class 532-570 Series  
Class 558 , Organic Compounds -- Part of the Class 532-570 Series  
Class 560 , Organic Compounds -- Part of the Class 532-570 Series  
Class 564 , Organic Compounds -- Part of the Class 532-570 Series

### **Surgical Processes, Techniques and Apparatus**

Class 128 , Surgery  
Class 433 , Dentistry  
Class 600 , Surgery  
Class 601 , Surgery: Kinesitherapy  
Class 602 , Surgery: Splint, Brace, or Bandage  
Class 604 , Surgery  
Class 606 , Surgery  
Class 607 , Surgery: Light, Thermal, and Electrical Application  
Class 623 , Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor

### **Materials Coating Processes**

Class 106 , Compositions: Coating or Plastic  
Class 252 , Compositions  
Class 501 , Compositions: Ceramic  
Class 521 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 522 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 523 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 524 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 525 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 528 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 556 , Organic Compounds -- Part of the Class 532-570 Series

### **Mineral Oil and Hydrocarbon Suspension Manufacturing**

Class 208 , Mineral Oils: Processes and Products  
Class 502 , Catalyst, Solid Sorbent, or Support Therefor: Product or Process of Making  
Class 516 , Colloid Systems and Wetting Agents; Subcombinations Thereof; Processes Of  
Class 526 , Synthetic Resins or Natural Rubbers -- Part of the Class 520 Series  
Class 562 , Organic Compounds -- Part of the Class 532-570 Series  
Class 568 , Organic Compounds -- Part of the Class 532-570 Series  
Class 585 , Chemistry of Hydrocarbon Compounds

### **Chemical Fertilizer Production**

Class 071 , Chemistry: Fertilizers  
Class 201 , Distillation: Processes, Thermolytic  
Class 202 , Distillation: Apparatus  
Class 203 , Distillation: Processes, Separatory

### **Crop Planting, Harvesting and Threshing**

Class 056 , Harvesters  
Class 111 , Planting  
Class 460 , Crop Threshing or Separating

### **Synthetic Hydrocarbon Production**

Class 552 , Organic Compounds -- Part of the Class 532-570 Series  
Class 554 , Organic Compounds -- Part of the Class 532-570 Series  
Class 800 , Multicellular Living Organisms and Unmodified Parts Thereof and Related Processes

### **Synthetic Fuel Chemistry**

Class 260 , Chemistry of Carbon Compounds  
Class 518 , Chemistry: Fischer-Tropsch Processes; or Purification or Recovery of Products Thereof

## Which Missouri institutions are responsible for the most inventions and patents?

The following table shows the producers of the most patents in Missouri since 1999. Transitions and company spin-offs are detectable from the table. For instance, Monsanto's spin-off of Monsanto Technology, LLC, Boeing's successor status to McDonnell Douglas, and Pharmacia's successor status to Solutia Inc. can be seen by the way patent issuance tapers off to zero for one company as it ramps up to previous development levels for the other.

### Top 25 Missouri Recipients of Patents by Year (1999 – 2003)

First-Named Assignee	Industry	1999	2000	2001	2002	2003	5-year Total
~Individually Owned Patent		264	236	208	220	207	1,135
MONSANTO COMPANY, INC.	Scientific Research and Development Services	54	44	46	3	7	154
WASHINGTON UNIVERSITY	Colleges, Universities, and Professional Schools	46	33	35	19	19	152
G. D. SEARLE & CO.	Basic Chemical Manufacturing	28	34	19	41	20	142
EMERSON ELECTRIC CO.	Electrical Equipment Manufacturing	29	28	37	26	21	141
MCDONNELL DOUGLAS CORP.	Aerospace Product and Parts Manufacturing	54	32	18	8	0	112
MEMC ELECTRONIC MATERIALS, INC.	Semiconductor and Other Electronic Component Man.	18	12	26	19	17	92
MONSANTO TECHNOLOGY, LLC	Wholesale Electronic Markets and Agents and Brokers	0	0	3	24	32	59
CURATORS OF THE UNIVERSITY OF MISSOURI	Colleges, Universities, and Professional Schools	15	5	12	13	13	58
MALLINCKRODT, INC.	Medical Equipment and Supplies Manufacturing	5	7	15	11	16	54
L&P PROPERTY MANAGEMENT COMPANY	Other Furniture Related Product Manufacturing	8	11	11	9	11	50
BOEING COMPANY	Aerospace Product and Parts Manufacturing	1	4	8	16	16	45
HUNTER ENGINEERING COMPANY	Commercial and Service Industry Machinery Man.	5	4	8	17	7	41
SHERWOOD SERVICES AG	Scientific Research and Development Services	5	6	12	7	7	37
SOLUTIA INC.	Basic Chemical Manufacturing	14	8	6	4	0	32
PHARMACIA CORPORATION	Scientific Research and Development Services	0	0	0	11	17	28
OUELLETTE MACHINERY SYSTEMS, INC.	Other General Purpose Machinery Manufacturing	3	4	6	7	7	27
ELISHA TECHNOLOGIES CO. L.L.C.	Scientific Research and Development Services	4	12	7	3	0	26
ST. LOUIS UNIVERSITY	Colleges, Universities, and Professional Schools	10	2	5	5	4	26
BAUSCH & LOMB SURGICAL, INC.	Medical Equipment and Supplies Manufacturing	4	16	5	0	0	25
NOVUS INTERNATIONAL, INC.	Misc. Nondurable Goods Merchant Wholesalers	10	3	6	3	2	24
BREWER SCIENCE, INC.	Resin, Synthetic Rubber, and Artificial Synthetic Fibers	5	3	2	4	8	22
PROTEIN TECHNOLOGIES INTERNATIONAL, INC.	Grain and Oilseed Milling	4	4	6	5	3	22
STEREOTAXIS, INC.	Scientific Research and Development Services	0	3	6	7	6	22
HUBBELL INCORPORATED	Other Electrical Equipment and Component Man.	1	6	4	4	6	21
SPRINT COMMUNICATIONS COMPANY L.P.	Wired Telecommunications Carriers	1	4	1	4	10	20

Source: U.S. PATENT AND TRADEMARK OFFICE, Office of Electronic Information Products, Patent Technology Monitoring Division (PTMD) – Analysis by MERIC

Among institutions of higher education in Missouri, Washington University, the University of Missouri System and St. Louis University have all been among the top 25 patent producers in Missouri since 1999.

## **Summary and Conclusions**

Most of Missouri's highly issued patent categories exhibited stability and persistence in the number of patents procured over time. A few patent classes like bio-affecting drug compositions, molecular biochemistry and surgery have grown rapidly especially during the 1990's.

In order to play to its innovative strengths, Missouri must develop and market its biochemical and pharmaceutical expertise. It is in this field more than any other that Missouri seems prepared to compete with larger, more populous states. Success comes by developing this "home-grown" expertise into production techniques and marketable products, rather than seeing those ideas and patents sold to companies on either coast, and developed into job-producing technologies elsewhere.

The same argument for increased commercialization within the state can also be made for all of the Missouri-inspired technologies receiving patents from the U. S. government.

## Glossary of Top 20 Use Patent Classes for Patents Awarded to Missourians

Class	Class Title
532	<p>Organic Compounds (includes Classes 532-570)</p> <p>Class 532 is a subclass of Class 260, the generic class for: (1) organic carbon compounds, (2) processes for their preparation not otherwise provided for, (3) the treatment and modification of organic carbon compounds (including mixtures of organic carbon compounds resulting from a synthesis or of natural origin) by chemical means and/or physical means, and the products of such treatment and modification not otherwise provided for, (4) compositions containing a synthetic resin, or ingredients which under the reaction conditions employed are known to form a synthetic resin, (5) compositions (not otherwise provided for) containing vulcanizable natural hydrocarbon gum or derivatives, and (6) hydrocarbon compositions (i.e., principally those that do not consist entirely of mineral oils.)</p> <ul style="list-style-type: none"> <li>• Class 532 (No Patents Here at Present; Intended Future Residual Subclass After Abolition of Class 260)</li> <li>• Class 534 (Radioactive or Rare Earth Metal Compounds, Azo and Diazo Compounds)</li> <li>• Class 536 (Carbohydrates)</li> <li>• Class 540/1 (Heterocyclic Carbon Compounds: Cyclopentanohydrophenanthrene Containing, Four-Membered Lactams, Porphyrins, Azaporphyrins, Nitrogen Hetero Rings with Seven or More Hetero Atoms)</li> <li>• Class 544 (Six-Membered Nitrogen Hetero Rings with Two or More Hetero Atoms)</li> <li>• Class 546 (Six-Membered Hetero Rings with One Ring Nitrogen)</li> <li>• Class 548 (Five-, Four-, or Three Membered Nitrogen Hetero Rings)</li> <li>• Class 549 (Oxygen or Sulfur Hetero Rings)</li> <li>• Class 552 (Azides, Triphenylmethanes, Quinones, Hydroquinones, Steroids)</li> <li>• Class 554 (Fats, Fatty Derivatives)</li> <li>• Class 556 (Heavy Metal, Aluminum or Silicon Compounds)</li> <li>• Class 558 (Esters)</li> <li>• Class 560 (Esters, including Carboxylic)</li> <li>• Class 562 (Acids, Acid Halides, Acid Anhydrides, Selenium &amp; Tellurium Compounds)</li> <li>• Class 564 (Amino Nitrogen Compounds)</li> <li>• Class 568 (Boron, Phosphorus, Sulfur, or Oxygen Compounds)</li> <li>• Class 260/665R (Carbon-Light Metal Compounds)</li> <li>• Class 570 (Halogen Compounds)</li> </ul>
424	<p>Drug, Bio-Affecting and Body Treating Compositions (includes Class 514)</p> <p>This class is the generic home for compositions for treating a living body and for controlling a pest.</p>
520	<p>Synthetic Resins or Natural Rubbers (includes Classes 520-528)</p> <p>In and in the indented subclasses are placed all patents which are directed to this class the preparation and treatment of the so-called synthetic resins or natural rubbers (e.g., complex organic compounds produced from ingredients which are generally nonresinous and which final products simulate the natural resins).</p> <ul style="list-style-type: none"> <li>• Class 520/1 (Synthetic Resins &amp; Natural Rubbers)</li> <li>• Class 521 (Ion-Exchange Polymers, Cellular Products, Waste Polymer Recovery)</li> <li>• Class 522 (Wave Energy Polymer Chemistry)</li> <li>• Class 523/1 (Synthetic Resin Compositions with Nonreactant Material)</li> <li>• Class 524</li> <li>• Class 525 (Chemically Treated Synthetic Resins, Compositions of Plural Synthetic Resins)</li> <li>• Class 526 (Miscellaneous Processes, Synthetic Resins from Only Ethylenically Unsaturated Monomers)</li> <li>• Class 527 (Synthetic Resins from Specified Natural Sources)</li> <li>• Class 528 (Synthetic Resins from Plant Material of Unknown Constitution or Specified Reactant)</li> </ul>

504	<p><b>Plant Protecting and Regulating Compositions</b></p> <p>This class provides for compositions for treating living terrestrial and aquatic plants or their habitats for the purpose of stimulating or inhibiting growth, or any regulating action on plant growth, and the processes of using such compositions or compounds. The compositions or compounds included in this class will alter the plant growth through a chemical modification of the plant metabolism. This class also provides for:</p> <ul style="list-style-type: none"> <li>(1) Seeds coated or impregnated with agricultural chemicals other than fertilizers,</li> <li>(2) Processes and their products which are of definite fertilizer value and are also insecticides, fungicides, or deodorants.</li> <li>(3) Antidotal compositions, i.e., compositions which contain compounds capable of protecting cultivated plants from being damaged by herbicidal chemicals without affecting the herbicidal action of said chemicals against the weeds or unwanted plants to be controlled.</li> <li>(4) Soil life extenders, i.e., compositions which contain a herbicide and a compound useful for extending the soil life of said herbicide.</li> <li>(5) Compositions for preserving cut flowers.</li> <li>(6) Compositions for stimulating or increasing the sprouting of seeds, roots, tubers, or bulbs.</li> <li>(7) Compositions for regulating aquatic plants, particularly algae.</li> <li>(8) Compositions for regulating plant growth which use micro-organisms or products derived therefrom.</li> </ul>
435	<p><b>Chemistry: Molecular Biology and Microbiology</b></p> <p>This class provides for the following subject matter when not provided for elsewhere:</p> <ul style="list-style-type: none"> <li>A. A process of using a microorganism or enzyme to synthesize a chemical product.</li> <li>B. A process of treating a material with a microorganism or enzyme to separate, liberate, or purify a preexisting substance.</li> <li>C. An in vitro process of measuring and testing in which: (1) A microorganism or enzyme is used to determine the presence or identity of a compound or composition in a sample; (2) A microorganism is identified by propagation; (3) An enzyme is identified by its catalytic activity; (4) The presence of microorganisms is detected; (5) A live microorganism is used in an antigen antibody test as an antigen; (6) Fixed or stabilized nonliving microorganisms, cells, or tissues are involved.</li> <li>D. A process of propagating a microorganism.</li> <li>E. A process in which the genetic structure of a microorganism or extrachromosomal genetic structure is altered.</li> <li>F. A process of organ or tissue maintenance.</li> <li>G. A process of mashing or malting.</li> <li>H. Apparatus claimed or solely disclosed as for A-G.</li> <li>I. Microorganisms, per se, or the subcellular parts thereof.</li> <li>J. Enzymes, immobilized enzymes or enzyme containing compositions not otherwise provided for and the processes for purifying enzymes or forming immobilized enzymes.</li> <li>K. Compositions claimed or solely disclosed as for the propagation of microorganisms or for measuring and testing processes in C above.</li> <li>L. Using microorganisms to destroy hazardous or toxic waste.</li> </ul>
426	<p><b>Food or Edible Material: Processes, Compositions, and Products</b></p> <p>This class provides in general for products and compositions in any physical form which are intended to be consumed by human being or lower animals in whole or part via the oral cavity. This class includes the following subject matter not provided for elsewhere. Products or compositions which historically have been considered to be a food. Products or compositions which are known to have or are disclosed as having nutritional effect. This is the generic class for: Flavoring compositions, Sweetening compositions, materials which are consumed so as to aid in mastication of a food, Processes of preparing or treating food. This class regards all ingredients or additives that are involved in preparing an edible as being proper herein.</p>

137	Fluid Handling
	This is the residual class for fluid material handling, and takes processes, systems, combinations, subcombinations and certain elements pertaining thereto not otherwise classified. Fluid materials include gas and liquids primarily, but the handling of other flowable materials, as fluent granular solids, is also found. Handling for this class comprises the transfer of fluent material by flow, as by confining, directing, causing and/or controlling the flow, and includes making the material available for flow or separating a smaller from a larger body of fluid material, as by tanks, containers, receivers, traps, etc., or pipes or conduits, with or without siphons, pumps, pressure or displacing fluids or other flow imparting means.
222	Dispensing (apparatus and process)
	This is the generic class for processes and apparatus for dispensing material, and takes all such subject matter that must be classified on such basis and not provided for in other main classes. This class is not limited as to the character of the materials dispensed which may be in any physical state, i.e., it may be in a gas, vapor, liquid, viscous, paste-like or solid state and if in a self sustaining state may have any form or shape.
52	Static Structures (e.g., Buildings)
	This is the residual class for static structures. It includes on site erected structures generally identified by terms such as: civil engineering, public works, shelter, housing, buildings or masts and other related components used in such structures, e.g., panels, beams, columns, etc. Also, included are selected structurally similar components, such as, table top panels, poles, posts, window sash elements or door panels even though not disclosed as specialized as components of a building structure. Also, are included processes, machines and implements used in the construction of such structures which are not elsewhere provided for.
128	Surgery (includes Class 600)
	This class includes methods of treatment of the living body and apparatus used in the inspection and treatment of diseases, wounds, and other abnormal conditions of the bodies of humans and lower animals. This class includes methods and means for manufacturing surgical appliances which are not classifiable in other classes. This class appropriate subclasses, provides for a method of blood transfusion or artificial inseminations. This class includes methods and apparatus wherein specific structure, adapted to be placed on or in the living body, is claimed, and further includes diagnostic or therapeutic methods and apparatus wherein no such specific structure is claimed, when the only disclosed utility is for diagnosis or treatment of a living body. In addition, subcombinations of surgical treatment or testing apparatus are classified in the class when not specifically provided for elsewhere.
280	Land Vehicles
	This class includes vehicles, adapted to travel on land and not elsewhere classified. The term "vehicle" includes some form of running gear as an essential element, which running gear usually supports a load carrier, but may support a load directly, and adapts the vehicle to move over a surface. The basic purpose of those devices commonly called vehicles is the carrying of a load, either freight or passengers, from one place to another. The idea of towing a load, as by locomotives, traction engines, or tractors, has also long been associated with the term "vehicle."
210	Liquid Purification or Separation
	This is the primary class for patents directed to treating water or waste liquid, and when not more specifically provided for, the class for patents directed to treating liquids in general or of any kind and provides (1) process and apparatus for (a) separating a component from (b) purifying or (c) effecting a change in water or waste liquid, such process or apparatus not being more specifically provided for in another class; (2) process of treating liquids in general and treating liquid compositions of either general or diverse utilities; (3) apparatus not provided for in other classes, for performing the foregoing processes and treating liquids of any kind; (4) filter materials or compositions peculiar to the above-mentioned processes; and (5) Processes for purification of liquids containing hazardous or toxic waste to produce a nonhazardous or nontoxic product.
604	Surgery (Medicators and Receptors)
	This class includes methods of treatment of the living body and apparatus used in the inspection and treatment of diseases, wounds, and other abnormal conditions of the bodies of humans and lower animals.

428	Stock Material or Miscellaneous Articles
	This class accommodates certain products of manufacture which are not provided for in classes devoted primarily to manufacturing methods and apparatus. The bulk of the documents are directed to stock material composites, that is, materials having two or more distinct components which are more ordered than a mere random mixture of ingredients. Certain finished articles, generally of an ornamental or readily disposable nature, are placed herein when this class specifically provides for them. Unfinished articles, e.g., blanks requiring further significant shaping to be suitable for ultimate use, and stock materials from which an indefinite number of usable portions may be cut, are placed herein unless specifically provided for elsewhere.
29	Metal Working
	This is the generic class of metal working or shaping. It comprises processes, tools, machines, and apparatus not classifiable in the specific classes relating to the manufacture of articles from metal. It also includes means which comprise a plurality of operations which separately might be classified in the specific classes, but which by their joinder include more than is covered by the definitions of such specific classes.
5	Bed
	This class relates to devices intended to receive the human body in a prone, supine, or sitting position for the purpose of repose, examination, or treatment. This class includes, devices ordinarily known as beds, examining tables, operating tables, hammocks, cradles, cribs, cots, camp beds, groundmats, sleeping bags, and bed accessories, such as mattresses, pillows, surgical supports, and bed clothing. Surgical supports for all parts of the human body, and surgical supports that are adapted to support animals or parts of animals, are included in this class.
62	Refrigeration
	This class includes (1) processes and apparatus peculiar to removing heat from a substance, usually by a change of phase of a coolant or refrigerant, as by evaporation, melting or sublimation, (2) the resultant product of part (1), e.g., ice, liquefied or solidified gases, and (3) processes and apparatus peculiar to handling the latter as a stored product, not elsewhere provided for.
310	Electrical Generator or Motor Structure
	This is the residual class for all subject matter, not elsewhere classified, relating to electrical generator or motor structure. Because Class 310 takes, under the class definition, only subject matter relating to electrical generator or motor structure not elsewhere classified, its scope can be determined only by determining the scope of other related classes.
73	Measuring and Testing
	This is the generic class for processes and apparatus for making a measurement of any kind or for making a test of any kind, and takes all such subject matter not provided for in other classes. The term "test" includes inspection, processes and apparatus for determining qualities by inspection being included where not provided for in other classes. This class is the generic class for sampling and takes all sampling apparatus and processes not otherwise provided for. Processes and apparatus for its practice are classified together.
248	Supports (e.g., for holding articles, etc.)
	This class provides for devices which carry the weight of an article or articles or otherwise hold or steady it or them against the pull of gravity, and devices for holding an article to its support, which are not otherwise provided for. Devices having structural features limiting them to use in a particular art remain with the art.

Source: U.S. PATENT AND TRADEMARK OFFICE, Office of Electronic Information Products, Patent Technology Monitoring Division (PTMD) – Analysis by MERIC

Additional information available at <http://www.uspto.gov/go/classification/selectnumwithtitle.htm>